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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,914	07/29/2003	Chih-Ming Ke	TS01-1388	8121
28112	7590	01/11/2005	EXAMINER	
GEORGE O. SAILE & ASSOCIATES 28 DAVIS AVENUE POUGHKEEPSIE, NY 12603			HASHMI, ZIA R	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/628,914	KE ET AL.	
	Examiner	Art Unit	
	Zia R. Hashmi	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/29/2003</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

1. An "Amendment" was received on November 12, 2004 in response to Office Action of August 10, 2004. The claims of the current application were inadvertently examined with respect to an unrelated application. Previous Office Action is hereby withdrawn.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-30 are rejected under U.S.C. 103(a) as being unpatentable over Todokoro et al. (6,084,238), in view of Petrov et al. (Publication No: US 2003/0218133).

4. With respect to independent claims 1 and 16, Todokoro et al. disclose a method and apparatus of focusing a scanning electron microscope (SEM) ( Abstract, lines 1-2 ), comprising: providing a magnetic lens ( 8 in Fig. 1 ), an image detector ( 27 in Fig. 1 ), and a wafer holder ( 22 in Fig. 1 ); providing means of adjusting the position of the wafer or sample holder (col. 17, lines 61-65 ); providing means for supplying a focus current to the magnetic lens so as to produce a magnetic field (col. 2, lines 63-64, col. 3, lines 44-45 ); providing means for supplying a retarding voltage to the wafer or sample holder

( Abstract, lines 7 & 12, col. 2, lines 28-29, col. 18, lines 7-9, and 13 in Fig. 1 ); placing a wafer on the wafer holder ( 12 in Fig. 1 ), adjusting the position of the sample holder, thereby adjusting the distance between the wafer or sample on the sample holder ( col. 12, lines 21-44, col. 17, lines 61-64, and 22 in Fig. 1 ); and adjusting the retarding voltage supplied to the sample holder supplied to the sample holder ( col. 11, lines 26-30 and col. 12, lines 21-34 ).

4. With respect to claims 1-30, Todokoro et al. fail to disclose means of adjusting focus parameters for a focused image of the wafer. Petrov et al., however disclose method and apparatus of focusing a charged particle beam by means of a focusing assembly of the wafer placed on the wafer holder at the image detector, after adjusting the retarding voltage supplied to the sample holder ( Abstract, lines 1-12,- and paragraphs 0011,0015-18, 0013, 0026, 0038, and Fig. 1 ).

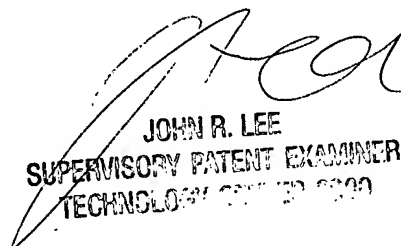
It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine methods and apparatus of Todokoro and Petrov et al., and add features like a laser to adjust position of sample holder, or control focus feedback information by a computer, because Todokoro et al. teach ( col. 1, lines 40-45 ) that SEM is being used in the process of manufacture of semiconductor devices wherein a high resolution of 10 nm or less is required.

### Conclusion

5. Enzumi et al. disclose ( Publication No: US 2004/0211899 A1 ) a sample electrification measurement method and a charged particle beam apparatus.
6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact Electronic Business Center (EBC) at 866-217-9197 (toll-free).
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zia Hashmi whose telephone number is (571) 272-2473. The examiner can normally be reached between 8.30 AM- 5 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477.

Zia Hashmi

December 28, 2004

  
JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2000